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EXAMINER

KAYES, SEAN PHILLIP

ART UNIT	PAPER NUMBER
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2833

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.		Applicant(s)	
	10/598,550		RAEBER ET AL.	
	Examiner		Art Unit	
	Sean Kayes		2833	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 23-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☒ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/9/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 23-31, 33-39, and 41-45 are rejected under 35 U.S.C. 102(e) as being anticipated by Plancon (US 7113450.)

3. With respect to claim 44 Plancon discloses an electronic device including:

- (a) a case (10 figure 1) containing a dial (30 figure 1);
- (b) electronic circuits (figures 3-5) including a time base (106-107 figure 4) and able to generate time signals to be sent to motor means (MD1-MD4 figure 4) controlling at least two analogue display members (18, 20-22, and 24 figure 1), arranged above the dial (30 figure 4); and
- (c) a sensor (120a-c figure 5) for a physical magnitude, for periodic acquisition of value of the physical magnitude as a function of time in a particular operating mode, wherein the sensor is connected to means for processing the values capable of generating electric signals to storage means (102 and 104 figure 4) provided for storing values, wherein the device has an additional operating mode that is a historic mode (column 22 lines 26-36 discusses displaying stored

information) in which the processing means (100-101 figure 4) are arranged for generating control signals to be sent to the motor means (MD1-MD4 figure 4) for a display representative of stored values of the physical magnitude as a function of time (column 22 lines 26-36 discusses displaying stored information according to time) so that at least a first analogue display member of the at least two analogue display members indicates, opposite suitable graduations of the device, a value of a variable the change in which is linked to the physical magnitude value, on condition that the variable does not give any indication relating to time remaining before a decompression stop has to be made, when the second analogue display member of the at least two analogue display members is made to indicate information relating to a depth (column 23 lines 8-22 states wherein at least one additional measured value is depth in a multipurpose embodiment.)

4. With respect to claim 45 Plancon discloses a historic display method for electronic device including a case containing a watch movement on which a dial is mounted, the watch movement including electronic circuits able to generate time signals to be sent to motor means controlling at least two analogue display members, said analogue display members being arranged above the dial to display current time in a first operating mode that is a time mode, the device further including a sensor for a physical magnitude, wherein the method includes the steps of:

- (a) first of all, performing a periodic acquisition of value of the physical magnitude as a function of time in a second operating mode of the electronic device (column

3 lines 10-30 and column 5 lines 65-67; the storage means 102 and 104 are electronic storage means thus entailing that the storage of the information is non continuous and subsequently periodic);

- (b) transmitting results of the periodic acquisition to means for processing the values capable of generating electric signals to be sent to storage means (102 and 104 figure 4) provided for storing said values (column 5 lines 65-67); and
- (c) in a third operating mode that is a historic mode (column 22 lines 26-36 discusses displaying stored information), controlling the motor means (MD1-MD4 figure 4) to form a display representative of stored values of the physical magnitude as a function of time, at least a first analogue display member of the at least two analogue display members (18, 20-22, and 24 figure 1) indicating (column 22 lines 26-36), opposite appropriate graduations of the device, a value of a variable the change in which is linked to the physical magnitude value, on condition that the variable does not give any indication relating to time remaining before a decompression stop has to be made, when a second analogue member of the at least two analogue display members is made to indicate information relating to a depth (column 23 lines 8-22 states wherein at least one additional measured value is depth in a multipurpose embodiment.)

5. With respect to claim 23 Plancon discloses an electronic device including:

- (a) a case (10 figure 1) containing a watch movement on which a dial is mounted, the watch movement including

- electronic circuits (figures 3-5) able to generate time signals to be sent to motor means (MD1-4 figure 4) controlling at least
- two analogue display members (18-26 figure 1), wherein the analogue display members are arranged above the dial (30 figure 1) to display current time in a first operating mode (column 5 lines 40-67 discuss wherein the device operates in two modes and column 7 lines 7-10 state that the device has standard minute, hour, and second hands for indicating time information); and the device further including
- (b) a sensor (column 3 lines 10-16 and 120a-c figure 5) for a physical magnitude, for periodic acquisition of value of the physical magnitude as a function of time in a second operating mode (column 5 lines 40-67 discuss wherein the device operates in two modes), wherein the sensor (120a-c figures 4-5) is connected to means (100-101 figure 1) for processing values capable of generating electric signals to storage means (102 and 104 figure 4) provided for storing values, wherein the device has
- a third operating mode (column 22 lines 26-36 discusses displaying stored information according to time) in which the processing means are arranged for generating control signals to be sent to the motor means for a display representative of stored values of the physical magnitude as a function of time so that at least a first analogue display member of the at least two analogue display members indicates, opposite suitable graduations of the device, the value of a variable the change in which is linked to physical magnitude value, on condition

that the variable does not give any indication relating to the time remaining before a decompression stop has to be made or any indication relating to a minimum depth not to be exceeded by a person wearing the electronic device when coming up from a dive,

- when a second analogue display member of the at least two analogue display members is made to indicate information relating to a depth (column 23 lines 8-22 states wherein at least one additional measured value is depth in a multipurpose embodiment.)

6. With respect to claim 24 Plancon discloses the device according to claim 23, wherein the first operating mode is a time mode (column 7 lines 7-10 state that the device has standard minute, hour, and second hands for indicating time information), the third operating mode is a historic mode (column 22 lines 26-36 discusses displaying stored information according to time), and the electronic device is a watch.

7. With respect to claim 25 Plancon discloses the device according to claim 24, wherein in said historic mode (column 22 lines 26-36) said processing means (101 figure 4) are further arranged for generating signals to be sent to said motor means (Md1-Md4 figure 1) so that said at least two analogue display members remain superposed (Figure 9a depicts the regular time display hands superposed over the historic sensor display, 22 figure 9a.)

8. With respect to claim 26 Plancon discloses the device according to claim 24, wherein in said historic mode (column 22 lines 26-36) said processing means (101 figure 4) are also arranged for generating signals to be sent to said motor means so that the second analogue display member is positioned opposite a twelve o'clock position (figure 9a shows the hand 22 operating in the 6 o'clock position.)

9. With respect to claim 27 Plancon discloses the device according to claim 24, wherein in said historic mode (column 22 lines 26-36), said processing means (101 figure 4) are further arranged for generating signals to be sent to said motor means so that at a given instant the second analogue display member indicates elapsed time (hand 24 displays the time information lines 35-36 column 22) since the start of acquisition of value of physical magnitude (lines 31-35 column 22) as a function of time, whereas said first analogue display member indicates value of said variable at said instant.

10. With respect to claim 28 Plancon discloses the device according to claim 24, wherein the device includes additional means for calculating value (column 22 lines 26-36) of a second variable from said measured value of physical magnitude, wherein said processing means is arranged for generating signals to be sent to said motor means so that the second analogue display member indicates at each instant, in said historic mode, the value of said second variable corresponding to the value of said variable displayed by said first analogue display member (in the embodiment discussed in lines

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26-36 of column 22 blood pressure and/or respiration correspond to the first analogue display value of heart rate.)

11. With respect to claim 29 Plancon discloses the device according to claim 24, wherein said sensor is a magnetic field sensor (the embodiment of figure 11 teaches a magnetic sensor; column 18 line 64 through column 19 line 6), wherein in said historic mode, said processing means are arranged for generating signals to be sent to said motor means so that said at least two analogue display members are aligned so as to indicate magnetic north (When the device is oriented in the North direction the two analog hand are aligned, figure 11.)

12. With respect to claim 30 Plancon discloses the device according to claim 23, wherein said sensor is an ambient pressure sensor (column 23 lines 8-22.)

13. With respect to claim 31 Plancon discloses the device according to claim 30, wherein said first analogue display indicates a measured depth (column 23 lines 8-22.)

14. With respect to claim 33 Plancon discloses the device according to claim 30, wherein said first analogue display member indicates a measured altitude (figure 10.)

15. With respect to claim 34 Plancon discloses the device according to claim 33, wherein said second analogue display member (depicted in figure 10) indicates an

altitude difference value (the indicated altitude value is the altitude different between the measured altitude and sea level. Additionally column 22 line 66 through column 23 line 3 discusses setting the altitude relative to a user set reference point.)

16. With respect to claim 35 Plancon discloses the device according to claim 30, wherein said first analogue display member indicates a substantially instantaneous altitude variation speed (the speed is at least depicted by the rate of change of the altitude indicator.)

17. With respect to claim 36 Plancon discloses the device according to claim 35, wherein additional means are provided for generating signals to be sent to said control means so that said second analogue display member further indicates, in said historic mode and at a given instant, a mean altitude variation speed calculated over a predefined period of time preceding said given instant (the embodiment of figure 10 indicates altitude information. Column 12 lines 15-27 discuss wherein the measured value is measured periodically and the subsequent calculation.)

18. With respect to claim 37 Plancon discloses the device according to claim 24, wherein the device includes a temperature sensor (figure 10 depicts indication of measured temperature) for measuring a physical magnitude representative of ambient temperature, said electronic circuits being capable of storing measurements of said temperature sensor (column 15 lines 3-12 discuss replacing or supplementing the heart

rate measurement with a temperature measurement) to generate electric signals to be sent to said motor means so that one of said at least two analogue display members indicates temperature value in said historic mode (column 22 lines 26-36.)

19. With respect to claim 38 Plancon discloses the device according to claim 24, wherein in said second operating mode, said processing means (101 figure 4) are arranged for generating signals to be sent to said motor means (MD1-MD4) so that, during the course of said acquisition of the value of the physical magnitude, the display of the device is identical to the current time displayed by the at least two analogue members in the time mode (the operation of the device in time mode and the second mode does not change the appearance of the hands and/or dial.)

20. With respect to claim 39 Plancon discloses the device according to claim 23, wherein in said second operating mode, said processing means are arranged for generating signals to be sent to said motor means so that said first analogue display member displays the value of said variable substantially in real time (column 22 lines 37-54 discusses an alarm function for indicating that a current measurement for the heart rate is outside a defined range, thus entailing that the second operation mode indicates information in real time.)

21. With respect to claim 41 Plancon discloses the device according to claim 23, wherein said electronic circuits are arranged for periodically storing said measured

values in said second operating mode (column 17 line 27-30 states wherein the stored data correlates to predefined increments. More generally, the discrete and non-continuous nature of electronic memories such as 102 and 104 figure 4 entails that the stored data is inherently stored periodically and not continuously.)

22. With respect to claim 42 Plancon discloses the device according to claim 41, wherein said electronic circuits are arranged for altering the storage period of said measured values as a function of the actual duration of said acquisition of the value of the physical magnitude (the period of duration for storing data is inherently correlated to the amount of time spent recording the data.)

23. With respect to claim 43 Plancon discloses the device according to claim 23, wherein the device further includes a liquid crystal display (column 16 lines 44-58 and figure 8d) for displaying complementary information to indications provided by said at least two analogue display means.

Claim Rejections - 35 USC § 103

24. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

25. Claims 32 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Plancon (US 7113450) in view of Germinquet (US 2004/0047242.)

26. With respect to claim 32 Plancon discloses the device according to claim 31.

Plancon does not teach further including means for automatically activating said second operating mode from said time mode in response to immersion of the device in water. Germinquet teaches a dive watch for tracking diving information. Germinquet teaches automatically starting a diving operation upon detection of an immersion of the device in water (paragraph 39.)

At the time of the invention it would have been obvious to one skilled in the art to configure Plancon's device to automatically activate a second mode in response to immersion of the device in water as taught by Germinquet. The reason for doing so would be time enable automatic timing as taught by Germinquet.

27. With respect to claim 40 Plancon discloses the device according to claim 24. Plancon does not teach wherein in said historic mode, said electronic circuits are capable of operating said motor means so that the display of the value of said variable as a function of time is performed over a predefined maximum period of time, so that when actual duration of said acquisition of the value of the physical magnitude is greater than said predefined period of time, the value of said variable as a function of time is displayed in an accelerated manner.

Germinquet teaches providing a historic display in an accelerated fashion (paragraph 21.) Germinquet teaches doing so for safety reasons (paragraph 73.)

At the time of the invention it would have been obvious to one skilled in the art to configure Plancon's device to be capable of accelerated playback of the historic display mode when the duration of the historic data is large, as taught by Germinquet. The


reason for doing so would be to allow a user (such as a doctor) to quickly review the information, thus achieving safety considerations as taught by Germinquet

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sean Kayes whose telephone number is (571) 272-8931. The examiner can normally be reached on 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bradley Paula can be reached on (571) 272-2800 ext 33. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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10/18/2007


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